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(54) **Ground incursion avoidance system and display**

(57) An airborne processor (104) is linked to a ground-based, vehicle based, or satellite-based supplier of approaching aircraft data and/or terrain data, including airfield structures. The processor (104) also has access to the aircraft's state, e.g. position, speed, intended route, aircraft dimensional data, or the like. Algorithms (130) within the processor (104) calculate a zone of protection (312, 512, 612) about the aircraft in light of aircraft type, turning radius, and other identifying data. The processor

(104) combines the present and estimated future positions of the aircraft (304, 504, 604) with the approaching aircraft (404, 704) and/or airfield structure (134) data, and creates an alert to the crew if a threat of a ground incursion (140) is detected. The display (112) provides a visual of the zone of protection (312, 512, 612) about the aircraft (304, 504, 604) and approaching aircraft (404, 704) and/or airfield structure (134) to draw the attention of the crew to the threat.

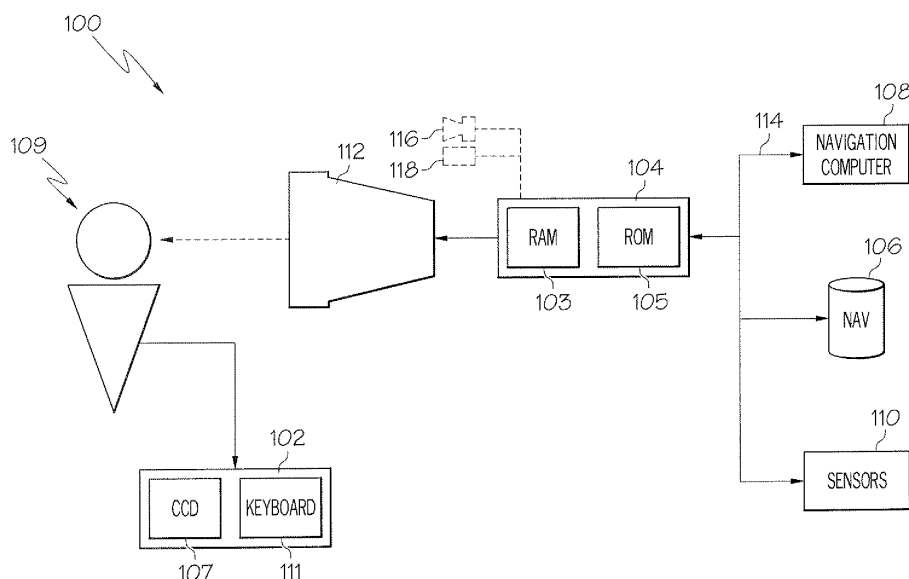


FIG. 1



EUROPEAN SEARCH REPORT

Application Number
EP 06 12 0867

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
E	US 2007/078591 A1 (MEUNIER HUGUES [FR] ET AL) 5 April 2007 (2007-04-05) * paragraphs [0075] - [0092]; figures 5-8 *	1-9	INV. G05D1/00 G08G5/06
X	WO 03/107299 A (RYAN INTERNAT CORP [US]; BRODEGARD WILLIAM C [US]; RYAN DEAN E [US]) 24 December 2003 (2003-12-24) * paragraphs [0021] - [0048]; figures 1,4-6 *	1-9	
E	US 2007/018887 A1 (FEYEREISEN THEA L [US] ET AL) 25 January 2007 (2007-01-25) * the whole document *	1-9	
			TECHNICAL FIELDS SEARCHED (IPC)
			G05D G08G G01C
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 16 January 2009	Examiner Groen, Fokke
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 06 12 0867

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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16-01-2009

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 2007078591	A1	05-04-2007	FR	2891644 A1	06-04-2007
WO 03107299	A	24-12-2003	AU	2003269807 A1	31-12-2003
US 2007018887	A1	25-01-2007	EP	1908022 A2	09-04-2008
			WO	2007123558 A2	01-11-2007
